

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>	Docket Number (Optional):  <b>5952-064</b>	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]  Date: <b>July 14, 2010</b>  Signature:  Typed or printed name: <b>KATHLEEN MCDERMOTT</b>	Application Number:  <b>10/598,662</b>	Filed:  <b>September 7, 2006</b>
	First Named Inventor:  <b>Ki-Baek Han</b>	
	Art Unit:  <b>1797</b>	Examiner:  <b>MS. DENISE R. ANDERSON</b>


Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).  
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor  
  
☐ assignee of record of the entire interest.  
  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)  
  
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☐ attorney or agent acting under 37 CFR 1.34.  
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NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ form(s) is/are submitted.

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. This information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of  
**Ki-Baek Han, et al.**

Serial No.: **10/598,662**

Filed: **September 7, 2006**

For: **Fine Filtering Apparatus Controllable  
Packing Density Using Flexible Fiber**

Docket No: **5952-064**

PATENT PENDING

Examiner: Denise R. Anderson

Group Art Unit: 1797

Confirmation No.: 8632

Mail Stop Amendment  
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**CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]**

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July 14, 2010

Date

*Kathy McDermott*  
Kathy McDermott

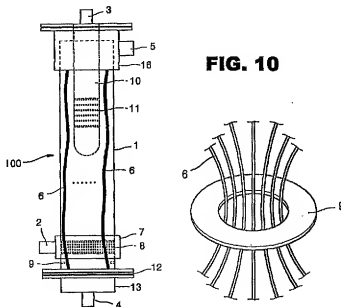
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**REMARKS SUPPORT PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Claim 25 requires "a density control plate...disposed within the housing below the water guide jacket for increasing a density of the fibers below the water guide jacket and for generally inhibiting the water from flowing downwardly in a direction toward the air inlet." Similarly, claim 34 requires "a density control plate for increasing the density of the fibers in an area of the cavity between the water inlet and the air inlet and wherein the increased density of the fibers generally inhibits the water from flowing in a direction from the water inlet towards the air inlet." Likewise, claim 41 requires "increasing the density of a plurality of flexible fibers extending within the treatment cavity in an area below the water guide jacket using a density control plate to inhibit the water from flowing downwardly in a direction toward the air inlet." For reference, the filtering apparatus of the present invention is shown below in Figs. 2 and 10. The density

control plate is indicated by reference numeral 9 and the water guide jacket is indicated by reference numeral 7.

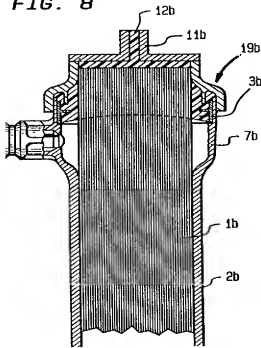


**FIG. 2**

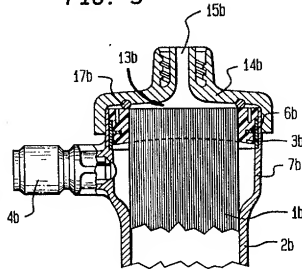
In rejecting the above claims, the Examiner acknowledges that U.S. Patent No. WO/02/24306 (Boye) does not disclose a density control plate disposed below the water guide jacket, as claimed. Instead, the Examiner cites U.S. Patent No. 5,053,130 (Raff) as having a ring 6b, which is allegedly disposed below a water guide jacket in Raff. See, Final Action, p. 8. However, Raff's ring 6b is not a density control plate. Nothing in Raff describes that ring 6b controls the density of the fibers to inhibit the water from flowing in a downward direction, as claimed. For example, ring 6b never engages the fibers or provides any force upon the fibers and thus, it is impossible for ring 6b to have any effect on the density of the fibers. Instead, Raff's ring 6b provides a reduced attachment between the wall 3b and the housing 2b to prevent cracks in the wall 3b and the housing 2b when the filtration device is cured. Raff states that "ring member has a coefficient of adhesion in relation to the end wall which is lower than the coefficient of adhesion in relation to the housing. As a result, the structural integrity of the

housing and the seal created by the end wall is enhanced and the risk of cracks therein is substantially eliminated." Raff, col. 2, lines 17-25. Raff's Figs. 8-9 are shown below for reference.

**FIG. 8**



**FIG. 9**



In order to properly read on the claimed invention, the Examiner must point to a density control plate - not just *any* plate ring. That is, the Examiner must point to an element that actually affects the density of the fibers in the filtration device. For at least this reason, the pending claims are not rendered obvious over the cited art.

Notwithstanding the above, the Examiner's motivation to modify Boye in view of Raff fails to set forth a *prima facie* case of obviousness. The Examiner states that it would be obvious to modify Boye with Raff's ring 6 since Raff teaches that such "modification [will] enhance the structural integrity of the fiber's seal and substantially eliminate the risk of cracks." Final Action, p. 9. However, merely placing a ring below Boye's alleged water guide jacket will not necessarily enhance structural integrity or eliminate cracks, as suggested by the Examiner. Raff teaches that in order to enhance structural integrity and eliminate cracks, the ring must be

placed between the end walls 3 and the housing 2, 7. Raff, col. 1, lines 55-62. Thus, in order to enhance structural integrity or eliminate cracks in Boye, the ring cannot merely be placed somewhere below the alleged water guide jacket. Instead, the ring must be placed between an end wall and the housing. Although the Examiner alleges that Boye's housing is shown by reference numeral 1, the Examiner never identifies any structure in Boye to be an end wall similar to that described in Raff. Further, Applicant submits that Boye does not appear to include a separate end wall that is not integrally formed with housing 1. Thus, it would be impossible to place a ring between an end wall and the housing 1 in Boye. Therefore, one of ordinary skill in the art would not combine the teachings of Boye and Raff for the reasons set forth by the Examiner.

Further, one of ordinary skill in the art would not be motivated to place a density control plate below the alleged water guide jacket in Boye because Boye expressly teaches against compressing the fibers at a point below the alleged water guide jacket. For instance, Boye states that "[i]n order to obtain sufficient space for the deposited particles and in order to avoid early clogging of the filtering device, the jaws 7a/b, and thereby the location of the compressing 8 is preferably arranged so that about 2/3 of the length of the fibre housing is on the inlet side of the jaws 7a/b..." Boye, p. 12, lines 14-17. Thus, Boye teaches that placing a density control plate below the alleged water guide jacket (to the left of inlets 6 in Boye Fig. 1), would cause early clogging of the filtering device. Thus, the pending claims are not obvious over the cited art.

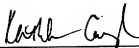
In addition, claim 25 requires a "header jacket including a clarified water outlet...[and] including a waste outlet." In addition, the claim requires that the "header jacket extend[] around a second end portion of the housing." The Examiner states that the header guide jacket is shown by an "arrow exiting the device" in Boye's Fig. 1. Final Action, p. 6. Thus, it is somewhat unclear what element in Boye the Examiner maintains is the header jacket. However, no single structure in Boye includes separate a clarified water outlet and a waste outlet, as required by

the claim. Instead, the outlet (shown by the arrow exiting the device in Boye's Fig. 1) is used as both the clarified water outlet and the waste outlet. It functions as a clarified water outlet during the filtering mode and as a waste outlet during the cleaning mode. As shown in Boye's Fig. 2, the clarified water outlet and the waste outlet only become separate outlets at a point disposed downstream from the filtering device. Thus, the separate clarified water outlet and waste outlet do not form a part of the alleged header jacket.

In addition, the Examiner notes that "[h]eader jackets are known in the art" and cites Raff as describing the claimed header jacket. Final Action, p. 6. The Examiner states that it would have been obvious "to have substituted the Boye header jacket for that disclosed in Raff...since it was known in the art to provide a clarified water outlet and a waste outlet in a filtering apparatus." Final Action, p. 7. However, merely stating that each claim limitation is allegedly found in several different prior art references does not support a *prima facie* of obviousness. MPEP §2143.01 states that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious..." Instead, the Examiner must set forth some articulated reasoning with a rational underpinning explaining why one of ordinary skill in the art would substitute the alleged header jacket in Boye for the alleged header jacket in Raff. Since the Examiner has failed to set forth any reason to modify Boye, the §103 rejection fails as a matter of law.

In light of the foregoing remarks, Applicant respectfully requests that the Panel overturn all rejections and allow all pending claims.

Respectfully submitted,  
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